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U.S. PATENT APPLICATION

FOR:

SUPPLY OR SERVICE NEED

FULFILLMENT METHOD AND SYSTEM

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Similar scenarios exist with regard to other products and services as well. However, most consumers, and often sellers of products and services, are unaware of existing markets of similar and equivalent products and services. Because of this
5 ignorance, some consumers often pay an unnecessarily higher price for products and services while some sellers often sell their available products and services for substantially less than they might be worth in a different market.

Prior art methods and systems for fulfilling supply and
10 service needs have been relatively simple. Bids are accepted from suppliers which are potentially capable of fulfilling a buyer's particular needs, or vice versa. The lowest, or highest bid is then accepted unless that bidder has been determined by past experience to be too unreliable. However,
15 prior art methods and systems for fulfilling supply and service needs have not been concerned with similar or equivalent products and services. Therefore, though this method does fulfill the needs of a consumer, it is not always the most efficient and cost effective manner in which to
20 achieve fulfillment. Therefore, there exists a need for an

improved method for optimizing the efficiency and cost effectiveness of need fulfillment.

Summary of the Present Invention

5 The present invention utilizes this disparity among markets, to optimize for a particular consumer or seller, the fulfillment of needs. By doing so, the present invention overcomes the shortcomings of the prior art mentioned above.

By exploring many markets to fulfill a particular need,
10 the present invention can determine which market most effectively fulfills the particular need. In determining the possible markets, the present invention also considers similar and equivalent products and services.

Further, the present invention encourages markets
15 throughout the world seeking to transact with consumers and sellers which utilize the present invention, to alter their own prices and business methods. These changes have the effect of increasing competition among the various markets, and thus benefiting consumers and sellers utilizing the system
20 or method.

Brief Description of the Drawings

A better understanding of the present invention will be had upon reference to the following detailed description, when read in conjunction with the accompanying drawings, in which:

5 FIG. 1 is a chart illustrating data stored for fulfilling supply and service needs in accordance with the present invention;

FIG. 2 illustrates a preferred embodiment of a system for aggregating multiple marketplaces in accordance with the
10 present invention;

FIGS. 3 and 4 illustrate embodiments of systems for aggregating multiple marketplaces in accordance with the present invention; and

FIG. 5 illustrates an embodiment of the process for
15 fulfillment of service and supply needs through the aggregation of multiple markets in accordance with the present invention.

Detailed Description

20 With reference first to Fig. 1, a chart illustrating a typical list of bids or prices from suppliers is shown. It

should be noted that the terms supplier and seller are used herein interchangeably and refers to the supplier, seller or offeror of goods and/or services associated with the system and processes described herein. When a supply or service need
5 (hereinafter referred to as "need") is communicated to suppliers, they customarily submit a bid, an offer for fulfilling such needs. Additionally, standard prices may be published or advertised by such suppliers. Buyers may bid in a similar manner for a limited commodity. The large disparity
10 in price reflects the differences in price common among different markets.

A particular need may be fulfilled by more than one product or service. The supply need illustrated by the chart of Fig. 1 may reflect a buyer's request for a quantity of
15 widgets. Upon investigation by one embodiment of the present invention, it may be revealed that sprockets are equivalent to widgets but are sold in different markets. Further, it may become apparent that two cogs, gears, or pulleys may be substituted for a sprocket in certain applications, and these
20 parts are each sold in a distinct market. The price 120,

represents the total price charged by a particular supplier for providing a particular part or product 110.

5 A typical company utilizing a prior art method of fulfilling its needs might purchase its needed supplies or services from a supplier such as Supplier A in the situation illustrated by Fig. 1 at a price of \$3 each widget. If the company searched for a lower price within the market of widget manufacturers, the company might discover Supplier F and choose to employ Supplier F at a cost of \$2.75 for each
10 widget.

However, the present invention searches for a more cost effective solution by analyzing the data of Fig. 1 as well as other pertinent information. For example, let us first suppose that neither gears nor pulleys are suitable for the
15 buyer's intended application despite their similarity to widgets, possibly because of the quality requirements of the buyer. The method and system may then review offerings among other markets for a suitable part (or service). Such a search may reveal that Supplier H is offering cogs - a part which is
20 a suitable replacement for buyer's widgets. The present invention may further determine that employing Supplier H is

most cost effective at a savings of 40% over Supplier A. Further, the inclusion of multiple marketplaces may tend to improve the quality and reliability of the transacted for product or service.

5 Referring now to Fig. 2, the system architecture of a central controller according to one embodiment of the system of the present invention is shown. In that embodiment, the system and method includes a central controller 10. The central controller 10 is a conventional general purpose
10 computer, including a central processing unit ("CPU") 12, read-only memory ("ROM") 14, and random access memory ("RAM") 16. The central controller also includes a storage device 18, for example one disk or more disk drives.

The CPU 12 executes program code stored in one or more of
15 ROM 14, RAM 16, and storage device 18 according to conventional data processing techniques to carry out the functions and acts described in connection with the central controller 10. CPU 12 preferably comprises at least one high-speed digital data processor adequate to execute program
20 modules for selecting and executing purchases.

The CPU 12 preferably comprises a conventional microprocessor such as an Intel® Pentium Processor. CPU 12 is electronically coupled with each of the central controller's 10 other elements.

5 The storage device 18 may include a market database 20. The CPU 12 maintains and accesses data stored in the market database 20 and analyzes the information stored in this database. The market database 20 may include information regarding terms of art, similar and equivalent products and
10 services, individual suppliers and buyers, and distinct markets.

The central controller 10 may also be connected to a network interface 22, which allows the elements of the central controller 10 to communicate with entities outside of the
15 utilizing company. The network interface 22 could be a phone, fax, wireless communication device, or the like. The network interface 22 is in communication with the markets 32, whose information is stored in the supplier database 20 and a user 26. It should be noted that the user 26 may be a buyer or
20 seller (or supplier) of goods and/or services associated with the systems and methods described herein. Through its network

interface 22, the present embodiment can order particular supply and service needs to be fulfilled.

Referring to Figs. 3 and 4, the structure of functional units of a system embodying the present invention is shown.

5 The aggregator 28, embodied in the central controller 10, is in communication with a number of marketplaces 32. Each marketplace contains a number of buyers 30 or sellers 34.

10 An individual buyer 30 as illustrated in Fig. 3, or alternatively an individual seller 34 as illustrated in Fig. 4 communicates a request to the aggregator 28. The aggregator 28 then retrieves information pertinent to that particular request from the market database 20. The aggregator utilizes this information in order to send requests to sellers 34 or buyers 30, whichever is appropriate, in suitable marketplaces 15 32 for bids.

The aggregator 28 analyzes all of the data it has available to suggest a course of action for the individual buyer 30 as in Fig. 3 or seller 34 as in Fig. 4. The aggregator 28 then continues to facilitate the transaction 20 between the individual buyer 30 (Fig. 3) or seller 34 (Fig. 4).

Referring to Fig. 5, the process of fulfilling a need through the aggregation of multiple marketplaces according to one embodiment of the system and method of the present invention is illustrated. The aggregation process begins upon
5 a request being provided by the user 26 (Step 40). This request may reflect the user's desire to acquire some product or service, or to sell a particular product or service. Upon the request being made, the processor 12 of the present embodiment continues to step 42, where it receives a user's
10 input to describe the particular request to be fulfilled.

The search is then performed by aggregator 28, at step 44. The communication between the aggregator 28 and the user 26 is facilitated by the network interface 22. The request made by the user 26 may be inputted to the aggregator 28
15 through various means well known to those skilled in the art. However, in one embodiment of the present invention, the request is made in a standardized, predetermined manner so as to facilitate the aggregation process of the present invention. The search performed by the aggregator 28 may
20 entail searching for similar and equivalent products or services as those demanded by the request. The aggregator 28

relies on the market database 20 for this purpose, to determine which products and services are similar to one another. Further, the market database 20 may contain information regarding the particular user 26, as well as various buyers 30 and sellers 34. This information can thus be used by the aggregator 28 to narrow its search for suitable markets 32, buyers 30, and sellers 34. In one embodiment, a database may be accessed which allows the aggregator 28 to search among different synonyms and other predetermined algorithms to identify similar products within or among different markets. One such algorithm may be searching among related standard industry codes (SIC) to identify other suitable products and/or services that may meet the buyer's 30 requirements.

Next, at step 46, the aggregator 28 presents the request made by the user 26 to the component buyers 30 or sellers 34 that form various markets 32. This presentation too may be made in a predetermined, standardized form so as to facilitate the individual buyers' 30 or sellers' 34 analysis of the request.

5 The aggregator 28 then waits at step 48 for bids or proposals from the buyers 30 or sellers 34 of the markets 32 selected at step 44. The bidding may be conducted by a number of known processes such as an open auction, sealed auction, negotiation proposal, setting and posting a price, or offering an exchange. The aggregator 28 receives the bids or proposals, in a standardized form well known to those skilled in the art in a preferred embodiment of the present invention. Such a form may be required of the buyers 30 and sellers 34 who wish to participate in the system of the present invention.

15 The aggregator 28 then processes these bids and proposals that it has received over a designated allotted time period, and presents them to the user 26 at step 50. These presentations as well may be in a standardized form reflecting such quantifiable factors which may include price, perceived quality, type of product or service, perceived reliability, availability, and time required for fulfillment.

20 At step 52, after the user 26 is provided with all of the necessary and relevant information from the proposals, the user 26 may choose whether to accept one or more of the

proposals. If the user 26 does not find any of the proposals to be satisfactory, the processor 12 branches to step 54, where the aggregator 28 requests that the user 26 provide additional criteria for its request or rephrases its previous
5 request. The processor 12 then begins the aggregation process again at step 40.

Conversely, if the user 26 chooses to accept one or more of the proposals provided, the processor 12 moves to step 56. At step 56, the aggregator facilitates any sales transactions
10 to be conducted between the user 26 and buyers 30 or sellers 34. The facilitation by the aggregator 28 may be beneficial to the user 26, as the identity of the user 26 can thus be concealed until such time as the user 26 desires to be known.

It will be apparent to those skilled in the art that
15 various modifications and variations can be made in the system and processes of the present invention without departing from the spirit or scope of the invention. Thus, it is intended that the present invention cover the modifications and variations of this invention provided they come within the
20 scope of the appended claims and their equivalents. In this context, equivalents means each and every implementation for

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carrying out the functions recited in the claims, even if not
explicitly described herein.

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